

REMARKS

Claims 1-36 are currently pending in the present application, with claims 1, 16, and 29-30 being written in independent form. Claims 1-4, 6, 8-24, and 26-35 have been amended for clarity. Applicants submit that all amendments to the claims are fully supported by the originally-filed application. For instance, support for the amendment to claim 27 may be found on p. 11, ln. 12, of the *original* specification (par. [0037] of the *published* specification). Thus, no new matter has been introduced into the claims.

Information Disclosure Statement

With regard to the information disclosure statement filed on July 26, 2005, Applicants note that three of the listed references were not initialed by the Examiner (US 2002/0090507; US 48,067; and International Search Report). Because there is no indication that the three references are being objected to, Applicants assume that the references were merely overlooked during the Examiner's consideration. Accordingly, Applicants respectfully request the Examiner to initial the three overlooked references.

Objection to the Specification

The Examiner has objected to the specification on grounds that "[t]he specification appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors." The Examiner also states that "[a] substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The Examiner further states that "[t]he substitute

specification filed must be accompanied by a statement that it contains no new matter.” *Office Action (06/09/2008)*: p. 2.

Applicants have amended the specification to correct the various informalities within. Thus, Applicants submit that the amended specification is no longer “in such faulty English that a new specification is necessary”. *MPEP* 608.01(q). Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this objection.

Claim Rejections under 35 U.S.C. § 112

Claims 1-36 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection for the reasons below.

With regard to claim 2, the Examiner states that “it is unclear whether the Applicant’s intent . . . is for the ATO, ITO and AZO to be listed as alternative nanoparticles or for the nanoparticles to include all three types.” Applicants have amended claim 2 for added clarity.

With regard to claims 3, 12, 17, and 31, the Examiner states that “the limitation ‘wherein the conductive nanoparticle is sized in diameter under 200 nm and in the range of 1 80 wt%, while the amphoteric solvent has 20 ~ 99 wt%’ is unclear.” Applicants have amended claims 3, 12, 17, and 31 for added clarity.

With regard to claims 6, 14, 19, and 33, the Examiner states that “it is unclear what ‘containing Sb with 5 ~ 20 wt%’ is meant to encompass.” The Examiner additionally states that “[i]t is also unclear what basis the ‘acid is included.” Applicants have amended claims 6, 14, 19, and 33 for added clarity.

With regard to claims 19 and 33, the Examiner further states that “‘the dispersing agent is included with 1 ~ 30 wt% to the conductive nanoparticle’ is unclear.” Applicants have amended claims 19 and 33 for added clarity.

With regard to claims 8 and 15, the Examiner indicates that it is unclear whether the dispersing agent is included in an amount of “130 wt%” or “1-30 wt%”. The Examiner also indicates that it is unclear whether “amin” should instead read “amine.” Applicants have amended claims 8 and 15 for added clarity.

With regard to claim 9, the Examiner states that “the phrases ‘more one resin binder’, ‘an anti-hydrolic’ and ‘a hydrolic’ are unclear.” Applicants have amended claim 9 for added clarity.

With regard to claims 10, 21, and 34, “‘1 ~ 95 wt%’ is unclear”. Applicants have amended claims 10, 21, and 34 for added clarity.

With regard to claim 11, the Examiner states that the limitations “should be drafted in proper alternative format”. Applicants have amended claim 11 for added clarity.

With regard to claims 18 and 32, the Examiner indicates that the limitation “at least more one among acids” is unclear. Applicants have amended claims 18 and 32 for added clarity.

With regard to claim 20, the Examiner states that the reference to “the compound defined in claim 19” is unclear, because “claim 19 is directed to a method not a compound.” The Examiner also states that “the term ‘mixing . . . with one more resin binders’ is unclear given that there was no resin binder recited in order for there to be one more.” Applicants have amended claim 20 for added clarity.

With regard to claim 22, the Examiner states that the claim language is “unclear and drafted in improper alternative format.” Applicants have amended claim 22 for added clarity.

With regard to claims 23 and 35, the Examiner states that it is unclear “what is meant to be encompassed by the term ‘series’”. The Examiner also suggests amending the limitation “hardened by an ultraviolet” to read “hardened by ultraviolet radiation”. Applicants have amended claims 23 and 35 for added clarity. Additionally, Applicants note that the term “series” is a term of art. Applicants submit that a brief search (e.g., polycarbonate-series resin) will reveal that the term is known and used by those of ordinary skill in the art.

With regard to claim 24, the Examiner states that “the ranges should be properly drafted since the character ‘~’ is unclear.” The Examiner also states that the limitation “proceeds in the velocity of 15 ~ 50 m/min” is unclear. Applicants have amended claim 24 for added clarity. Additionally, Applicants note that the character “~” is known and used by those of ordinary skill in the art to approximate a value or range. The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification. *MPEP* 2173.05(b).

With regard to claim 28, the Examiner indicates that the limitation “pencil intensity” is unclear. The Examiner also indicates that the limitation “heat-ray cutoff rate of 50%” is unclear. Applicants have amended claim 28 for added clarity. Additionally, Applicants note that “pencil intensity” is a term known by those of

ordinary skill in the art. Furthermore, "pencil intensity" is explained on p. 14, ln. 14-22, of the originally-filed specification.

With regard to claim 29, the Examiner states that "the heat-ray cutoff film' lacks antecedent basis." The Examiner also states that "[i]t is unclear whether the film is what prevents the heat rays from going in and out of the vessel or whether one could just not subject the vessel to heat rays." Applicants have amended claim 29 for added clarity.

With regard to claim 30, the Examiner states that the limitation "'mixing . . . with one more resin binders' is unclear given that there was no resin binder recited in order for there to be one more." The Examiner also indicates that it is unclear what is meant by "an electronic ray". The Examiner additionally states that "hear-ray" should probably be "heat-ray". Applicants have amended claim 30 for added clarity.

Claim Rejections under 35 U.S.C. § 102

Claims 1-23, 25-26, and 30-35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by US 5,807,511 (Kunimatsu). Applicants respectfully traverse this rejection for the reasons below.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Kunimatsu fails to disclose an “*amphiphilic* solvent”, as recited by amended claims 1, 16, and 30.¹ Those of ordinary skill in the art understand that an “amphiphilic solvent” is a solvent possessing *both* hydrophilic *and* hydrophobic properties. Thus, although the original specification mentions that the solvent is “amphoteric”, the solvent is also “amphiphilic”, as evidenced by its ability to be used with a hydrolic resin binder or an anti-hydrolic resin binder. *Original* specification: p. 7, ln. 18, to p. 8, ln. 15 (*Published* specification: par. [0024]-[0025]).

In contrast, Kunimatsu only discloses hydrophilic solvents. *Kunimatsu*: col. 4, ln. 42-54. Thus, although Kunimatsu discloses “ethylene glycol” as a solvent, it is important to note that “ethylene glycol” is *distinct* from compounds such as “ethylene glycol monomethyl ether”. Stated more clearly, “ethylene glycol” is only a *hydrophilic* solvent, while “ethylene glycol monomethyl ether” is an *amphiphilic* solvent.

For at least the reasons above, there can be no anticipation with regard to claims 1, 16, and 30. Consequently, there can be no anticipation with regard to claims 2-15, claims 17-23, 25-26, and claims 31-35, at least by virtue of their dependency on claim 1, claim 16, and claim 30, respectively. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the above rejection.

Claim Rejections under 35 U.S.C. § 103

Claims 24, 27-28, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kunimatsu. Applicants respectfully traverse this rejection for the reasons below.

¹ Support for the amendments may be inherently found, for instance, on p. 7, ln. 18, to p. 8, ln. 15, of the *original* specification (par. [0024]-[0025] of the *published* specification).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The deficiencies of Kunimatsu have been discussed above. Thus, as a starting point, Kunimatsu fails to disclose every limitation of the claims. Additionally, the missing claim limitations are not suggested by any identified portion of Kunimatsu.

For at least the reasons above, a *prima facie* case of obviousness cannot be established with regard to claims 16 and 30. Consequently, a *prima facie* case of obviousness cannot be established with regard to claims 24, 27-28 and claim 36, at least by virtue of their dependency on claim 16 and claim 30, respectively. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the above rejection.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully request the Examiner to withdraw the objections and rejections and allow all of the pending claims in connection with the present application.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. §1.17; particularly, extension of time fees.

Respectfully submitted,

HARNES, DICKEY, & PIERCE, P.L.C.

By

John A. Castellano, Reg. No. 35,094
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

JAC/ACC:clc
ACC